Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) A ~~M~~method for maintaining a manufacturing system by executing a real process in the system ~~characterized by~~, comprising:

executing a simulation process ~~synchronously with~~ parallel to the real process, ~~with~~ the simulation process simulating at least a part of the real process~~,~~;

comparing at least a portion of the simulation process with at least a portion of the real process ~~or the part thereof and~~ to obtain~~ing~~ a comparison result ~~from this,~~; and

deriving maintenance measures from the comparison result.

2. (currently amended) A ~~M~~method according to Claim 1, wherein ~~synchronizing with~~ the real process ~~takes place for executing~~ is executed with the simulation process during the parallel execution.

3. (currently amended) A ~~M~~method according to Claim 1, ~~or 2~~ wherein the simulation process and real process each comprise several steps and wherein ~~at least~~ one of the steps in each case is compared with the other for the purpose of deriving the maintenance measures.

4. (currently amended) A ~~M~~method according to ~~one of the~~ Claim~~s~~ 1 ~~to 3~~, wherein the comparing ~~takes place using~~ uses end results of the real process and simulation process ~~relating in particular to process control related variables and/~~or ~~component~~ partial results from one or more steps of the real process and simulation process ~~relating in particular to process control related variables~~.

5. (currently amended) A ~~M~~method according to ~~one of the~~ Claim~~s~~ 1 ~~to 4~~, wherein the real process and simulation process are controlled jointly by a single control device.

6. (currently amended) A ~~M~~method according to ~~one of the~~ Claim~~s~~ 1 ~~to 5~~, wherein a maintenance measure is an alarm ~~and/~~or activation of a maintenance system.

7. (currently amended) A ~~M~~method according to ~~one of the~~ Claims 1 ~~to 6~~, wherein a simulation process structure is automatically generated from a real process structure~~, in particular using a generic simulation model~~.

8. (currently amended) A ~~M~~method according to ~~one of the~~ Claims 1 ~~to 7~~, wherein the simulation process is supplied with substance ~~and/~~or production parameters from the real process.

9. (currently amended) A ~~D~~device for maintaining a system on which a real process with one or more real process steps can be executed ~~characterized by~~, comprising:

a simulation device for simulating ~~at least~~ a part of the real process by ~~means of~~ a simulation process, wherein the simulation process ~~can be~~ is executed synchronously with the real process~~,~~;

a comparison device for comparing the simulation process with the real process, with a comparison result being obtained from the comparison ~~this,~~; and

a control device for initiating a maintenance measure on the basis of the comparison result.

10. (currently amended) A ~~D~~device according to Claim 9, wherein the simulation process in the simulation device ~~can be~~ is synchronized with the real process.

11. (currently amended) A ~~D~~device according to Claim 9 ~~or 10~~, wherein the simulation process and real process in each case comprise several steps and wherein ~~at least~~ one of the steps in each case ~~can be~~ is compared with the other in the comparison device.

12. (currently amended) A ~~D~~device according to ~~one of the~~ Claims 9 ~~to 11~~, wherein comparing ~~can be~~ is carried out in the comparison device using end results of the real process and simulation process ~~relating in particular to process control related variables~~ ~~and/~~or ~~component~~ partial results from one or more steps of the real process and simulation process ~~relating in particular to process control related variables~~.

13. (currently amended) A ~~D~~device according to ~~one of the~~ Claims 9 ~~to 12~~, wherein the real process and simulation process ~~can be~~ are controlled jointly by a single control device.

14. (currently amended) A ~~D~~device according to ~~one of the~~ Claims 9 ~~to 13~~, which is embedded in a maintenance system.

15. (currently amended) A ~~D~~device according to ~~one of the~~ Claims 9 ~~to 14~~, wherein a simulation process structure ~~can be~~ is automatically generated from a real process structure~~, in particular using a generic simulation model~~.

16. (currently amended) A ~~D~~device according to ~~one of the~~ Claims 9 ~~to 15~~, wherein the simulation device ~~can be~~ is supplied with production parameters from the real process.

17. (new) A method according to Claim 2, wherein the simulation process and real process each comprise several steps and wherein one of the steps in each case is compared with the other ~~for the purpose of deriving~~ to derive maintenance measures.

18. (new) A method according to Claim 2, wherein the real process and simulation process are controlled jointly by a single control device.

19. (new) A device according to Claim 10, wherein the simulation process and real process comprise several steps and wherein one of the steps in each case is compared with the other in the comparison device.

20. (new) A device according to Claim 10, wherein the real process and simulation process is controlled jointly by a single control device.

21. (new) A method according to Claim 4, wherein the comparing uses end results or partial results related to at least one process-control-related variable.

22. (new) A device according to Claim 12, wherein the comparing uses end results or partial results related to at least one process-control-related variable.

23. (new) A method according to Claim 7, wherein a generic simulation model is used to generate the simulation process structure.

24. (new) A device according to Claim 15, wherein a generic simulation model is used to generate the simulation process structure.